



Kalamazoo River
Protection Association

Environmental activism since 1975
Protecting the Kalamazoo River Watershed and the Great Lakes

EPA Region 5 Records Ctr.



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Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Remedial Investigation/Feasibility Study Comments

February 28, 2001

Kalamazoo River Protection Association's Comments on the Remedial Investigation/Feasibility Study submitted by the Liable Parties

The Kalamazoo River Protection Association (KRPA) has conducted a review of the Remedial Investigation/Feasibility Study (RI/FS) prepared by the Liable Parties for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund site (site). In order to stop the cleanup of the site, the Liable Parties: Georgia Pacific Corporation, Fort James Paper Company, Plainwell Inc., and Allied Paper, Inc./Millennium Holdings, have deliberately produced an RI/FS that is incomplete, technically inaccurate, and which does not represent the risk at the site.

Although there are numerous deficiencies, errors, and misleading statements in the RI/FS the KRPA has chosen to only highlight the most egregious ones. The KRPA's technical review is divided into three parts. The first part is a review of the RI/FS, the second part is a review of the Liable Parties proposed remedy and the third part is a detailed description of the only acceptable Preferred Remedy. The KRPA has provided a list of recommendations that would result in the timely cleanup of the site once these recommendations are implemented. The following are the major deficiencies in the RI/FS.

Section 1 – Introduction

Comment 1, Cover Sheet - **How did PCB get into the river?**

In this document the Paper Companies have not presented any proof that other industries contributed any PCB to the river. The statement made here is an attempt to shift the Paper Companies liability to others. Change the statement to read “Sources of PCB to the Kalamazoo River and Portage Creek include the paper manufacturing facilities owned and operated by the Georgia Pacific Corporation, Fort James Paper Company, Plainwell Inc., and Allied Paper Inc./Millennium Holdings. These paper manufacturing facilities conducted paper recycling between 1957 and 1971. The PCB was contained in the carbonless copy paper and was released to the environment in the Paper Companies waste water discharge from their mills.”

This document should be very specific on the dates. The Liable Parties know the exact dates they recycled carbonless copy paper. National Register Corporation from 1957 to 1971 manufactured this type of paper. From 1957 to 1984 the Liable Parties recycled paper and illegally discharged the PCBs to Portage Creek and the Kalamazoo River.

Comment 2, Cover Sheet – **What are PCB?**

The title is incorrect. It should read “What is PCB?” not “What are PCB?” Again the exact dates the PCBs were banned in 1976 in both Michigan and the United States is well known and must be specified. The last sentence must be changed to indicate that “...may pose risks to humans and wildlife.” PCB is a risk to both humans and wildlife on the site regardless if they consume fish or not.

Comment 3, Cover Sheet – **Why set up Operable Units?**

Change first sentence to indicate that the OUs were “disposal sites for PCB contaminated paper-making residuals.”

Comment 4, Page 1-1:

The document should state the requirements of the Administrative Order by Consent (AOC) and delete the rest of the unnecessary text.

Comment 5, Page 1-2:

The first paragraph is incorrect. This Remedial Investigation/Feasibility Study (RI/FS) was not conducted in accordance with any of the statutes cited. In fact a review of this document and the Administrative Record for the site clearly indicated that the Michigan Department of Environmental Quality (DEQ) had provided clear guidance to the Liable Parties and they have refused to comply.

The Liable Parties refused to comply with the requirements for conducting and preparing the RI/FS set out in the Administrative Order by Consent (AOC) that they signed in December 1990. The RI/FS must comply with the AOC. Under the AOC this constitutes an intentional delay by the Liable Parties. The Liable Parties should be assessed stipulate penalties by the MDEQ for this delay and removed from the site.

This document also fails to comply with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) for preparing an RI/FS. The RI/FS must comply with all requirements of CERCLA and the NCP.

The document also does not follow the United States Environmental Protection Agency (EPA) "Guidance for Conducting Remedial Investigation and Feasibility Studies Under CERCLA" (EPA/540/G-89/004) when preparing the RI/FS. The RI/FS must adhere to all requirements of this guidance.

The only logical explanation for why this RI/FS does not comply with any of the above statutes or guidance is that the Liable Parties have made a conscious decision not to comply. The appropriate response to this by the DEQ is to take over the writing of the RI/FS immediately and remove the Liable Parties from the site.

Comment 6, Page 1-2:

Second paragraph, first bullet – delete the end of the statement starting at "...and addenda (Brown, 1995a; 1995b; 1996a; BBL, 1997)". The DEQ never approved any of these letters that the Liable Parties have misrepresented as addenda. The source of our information is the Administrative Record that is the site file. This is another attempt by the Liable Parties to intentionally mislead the regulatory agencies and the public. The MDEQ must address this deception by taking over the RI/FS and removing the Liable Parties from the site.

Comment 7, Page 1-3:

The shaded text box on this page is as good as an admission by the Liable Parties that they have intentionally delayed the cleanup of this site. All of the Technical Memoranda listed on this page should be final documents by now. However, Technical Memorandum 10, 12, 16, and 14 as well as its Addendum 1, 2, and 3 are not final. Matter of fact these 7 Technical Memoranda and Addenda are 5 to 7 year overdue just like the RI/FS. The reason these Technical Memoranda are

not final, according to the Administrative Record and the MDEQ is that the Liable Parties refused to final these Technical Memoranda. The appropriate response to the Liable Parties refusal would have been to take over the writing and final the Technical Memoranda. The MDEQ has done nothing. But now the MDEQ is asking the public to make informed decisions concerning the site without all the information. The KRPA demands that the entire site file, including all draft and final ???, be copies and submitted to the KRPA for review immediately.

Comment 8, Page 1-3:

The first paragraph on this page indicates that "This RI report summaries and incorporates by reference the contents, results, and findings of the various technical memoranda and draft technical memoranda...". First the Liable Parties refuse to final the technical memoranda according to the MDEQ instructions and now they have incorporate this same unapproved information from those draft technical memoranda into the RI. This is additional evidence that the Liable Parties have intentionally misrepresented the site data in an effort to support their proposed remedy. This is also evidence that MDEQ is mismanaging the site and either the MDEQ immediately takes over the RI/FS or turn the lead over to the EPA so the site is no longer delayed.

Comment 9, Page 1-3:

2nd paragraph, last sentence.

The last sentence states that "Further detail and associated data for several topics are contained in the various appendices.". The text must be deleted from all the appendices that refers to the unapproved data that the Liable Parties collected outside the AOC and the Superfund Program or the draft Technical Memoranda. The Liable Parties included, in the appendices of their RI/FS information regarding their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans as required by the AOC and the Superfund Program. The Liable Parties also intentionally prevented the MDEQ from providing oversight during the collection of their data as require by the AOC and the Superfund Program. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. That would include the appendices. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS. All comments made on the RI/FS also apply to all appendices.

Comment 10, Page 1-4:

Delete the entire section 1.2 Additional Information is Available and the shaded text box. The Liable Parties try to use the weak argument that additional data was necessary because certain fish species were not sampled. However, if this was the real reason for sampling other species why wouldn't the Liable Parties just submit to the MDEQ a work plan for approval and have the MDEQ conduct oversight as specified in the AOC. This data must not be accepted because the MDEQ has no clue as to where or how the data was collected and manipulated prior to submittal. The Liable Parties have proven that they can not be trusted.

Comment 11, Page 1-4:

1.3 Site Background. The footnote on this page must be deleted because it is incorrect. The Administrative Record and the NCP confirm that the NPL listing is just like a street address on a house. The geographical description of site is always the extent of the contamination. The Liable Parties were informed of the enlargement of the geographical boundaries of the site in letters from the MDNR in June 1991.

Comment 12, Page 1-5:

Change the first sentence to indicate that the paper making residuals contained PCBs. These areas are sources of PCB to the creek and river and not "potential".

Comment 13, Page 1-6:

Second paragraph, delete the 3rd & 4th sentence because they contain non-essential text and replace with "From 1957 through 1971, PCBs were used in the manufacture of carbonless copy paper. Sources that contributed PCB to the river were the paper manufacturing facilities, owned and operated by the Georgia Pacific Corporation, Fort James Paper Company, Plainwell Inc. and Allied Paper, Inc./Millennium Holdings, that recycled carbonless copy paper containing PCB starting in 1957.

Comment 14, Page 1-6:

Fourth paragraph, delete the 4th sentence because it is incorrect. The sentence that must replace this one needs to contain a description of how all of the Liable Parties failed to divulged to the regulatory agencies on their discharge permit applications that they were discharging PCB.

Comment 15, Page 1-7:

The Liable Parties use the outdated MDCH publication to minimize the risk at the site. All reference to the 1996 Kalamazoo River Fishing and Recreational Guide must be deleted. The Human Health Risk Assessment and the Ecological Risk Assessment prepared by the MDEQ are the only risk assessments that are pertinent to the site. These risk assessments must be used as the basis for all discussions on risk.

Comment 16, Page 1-7:

Delete both shaded boxes because they are incorrect.

Comment 17, Page 1-7:

The Liable Parties cite the ATSDR study. This study has limited to answering yes or no to the question, Are people eating fish?, because of the many flaws in the study, which the MDEQ provided comments.

Comment 18, Page 1-8:

Section 1.4 Site Description

It is incorrect to list the Morrow Lake Dam as being part of the site. It never has been part of the site and must be deleted. However, the Alcott Street Dam on Portage Creek should be listed.

Comment 19, Page 1-8:

The statements made in the 2nd paragraph are incorrect and seem to be an effort by the Liable Parties to mislead the MDEQ and the public. The Liable Parties have provide no documentation in this RI that the draw down of these three dams had any effect on the distribution of PCB in the river and these statements must be deleted throughout the document. The claim, by the Liable Parties, that the PCB in these area were "sequestered" is unsupported by the historical and RI data. These kind of statements must be deleted though out the document. These statements appear to be a blatant attempt by the Liable Parties to shift their liability to the tax payer. This is unacceptable.

The fact is that the draw down was done slowly and was beneficial because it removed the hundreds of acres of PCB contaminated waste out of contact with the water. This statement is factual and should be included in the RI.

Comment 20, Page 1-8:

The RI indicates that the “high hazard potential” classification was assigned to the dams “due to their crumbling structures and unsafe conditions.” This is incorrect and must be deleted. It is very obvious that the Liable Parties and their consultants Blasland, Bouck & Lee are trying to spin information for their benefit. The “high hazard potential” classification is assigned to these dams because if they fail there would be a release of the Liable Parties PCBs contamination.

However, it is true that the three dam structures are crumbling and in unsafe condition. From an engineering point of view these dams can not be maintained for more than 10 years and may fail before that regardless of what repairs are done. This is factual information from the reports on the dams prepared by the MDEQ and should be included in the RI. This is just another reason that it is imperative that the MDEQ take over the RI/FS and complete the total removal of PCBs from the site before the dams fail. The MDEQ has spent over \$500,000.00 of tax payer’s money on temporary repairs on these dams. The major reason that these dams have not been removed by now is that the MDEQ did not want to release the Liable Parties PCBs downstream. The MDEQ must cost recover this money from the Liable Parties.

Comment 21, 1-8:

In this paragraph the Liable Parties describe the on-going physical processes that go on everyday on the entire Kalamazoo River and state that “The continuing changes in the channel shape and position” and “the sloughing and erosion” which occurs on the river. These are natural on-going processes that are not caused by the draw down but occur through out the river system. And there is no way to stop this process from continuing. The paragraph should be deleted and written again. This time by MDEQ staff who understand river processes, are objective and competent.

Comment 22, 1-9:

Table 1, The Morrow Lake is not an upstream reference site and must be deleted from the table and through out the entire RI/FS.

Comment 23, 1-9:

Table 2, Morrow Lake is not now and never has been part of the site. Morrow Lake must be deleted from the table and through out the RI/FS. With the removal of the Morrow Lake the statement that the “river segment surface areas vary considerable” can be deleted. It should be noted that the numbers listed on this table appear to be the maximums.

Comment 24, 1-10:

Delete the first paragraph. The Morrow Lake is not part of the site.

Section 2 –Site Investigation

Comment 25, Cover Sheet – Has the whole river been studied?

Delete this statement. The Superfund site is from below the Morrow Dam to Lake Michigan and from Cork Street on Portage Creek to Kalamazoo River.

Comment 26, Cover Sheet – Other work:

Delete the 2nd bullet because it refers to data that was not collected under the AOC or Superfund program and is not part of the RI.

Comment 27, Page 2-1:

1st paragraph, delete all mention of Addendum 1, 2, & 3 these were never approved by the MDEQ. The statement that the Technical Memoranda are available is incorrect. The MDEQ must remove the RI/FS and all Technical Memoranda from the Liable Parties and final all documents.

Comment 28, Page 2-1:

Shaded Box – This box mentions mice and earthworms, which are some of the less noteworthy PCB concentration, and neglects to mention the heavy PCB contaminated mink and muskrats. These PCB concentrations are some of the highest in the nation and are the most important samples. This is another example of how the Liable Parties have written the RI/FS to mislead and deceive the MDEQ and the Public. This is totally unacceptable.

Comment 29, Page 2-1:

Delete the 2nd paragraph. This is an attempt to justify the data they collected without giving the MDEQ a chance to review/approve the work plan or provide oversight. As written this paragraph is factually inaccurate and intentionally misleading. The data should not be accepted and must be deleted.

Comment 30, Page 2-2:

The “Source Investigation” section really describes the Liable Parties search for other industries that may have contributed contaminants to the site. According to the site file the search has been fruitless and the Paper Companies turned out to be the major contributors of PCB to the site. This should be stated in this paragraph.

2.4.1 Sediment Characterization

Comment 31, Page 2-8:

1st paragraph cites Draft Tech Memo 10. The Draft Tech Memo 10 has not been approved by the MDEQ and therefore should not be cited in this RI. The reason, according to the numerous comment letters from the MDEQ to the Liable Parties, that the Draft Tech Memo 10 could not be approved because the draft was technically inaccurate and incomplete. The Draft Tech Memo 10 is not final because the Liable Parties refused to final this and other Draft Tech Memos. Any reference to Draft Tech Memo 10 must be deleted from the RI/FS. The MDEQ must seize control of the site immediately and final Draft Tech Memo 10 so that it is technical accurate and complete.

Comment 32, Page 2-8:

2nd paragraph continuing over to page 2-9 must be deleted. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as require by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

In this paragraph the Liable Parties also try to include Morrow Lake in this RI/FS. The MDEQ needs to inform the Liable Parties and their consultants BB&L that Morrow Lake is not part of the site. It appears to be the ultimate incompetence when the Liable Parties and their consultants BB&L do not understand the boundaries of the site and include a large area like Morrow Lake in the RI/FS, when Morrow Lake has never been part of the site. The MDEQ must take the site away from Liable Parties that are this incompetent.

2.4.2 Geostatistical Pilot Study

Comment 33, Page 2-9:

Delete the fourth sentence because it is inaccurate. The Liable Parties refused to use Geostatistics. The MDEQ try to work out the details with the Liable Parties for 5 years before realizing that the Liable Parties consultant, BB&L, was not competent in geostatistic. The decision was made by the MDEQ not to allow the Liable Parties to delay the cleanup any longer and not have BB&L use geostatistics. This paragraph must be deleted and re-written by the MDEQ so that it is accurate. Also this paragraph references the unapproved version of draft Tech Memo 10.

2.4.3 Geochronological Investigation

Comment 34, Page 2-10:

1st paragraph, last sentence must be deleted because it discusses the unapproved data collected Liable Parties.

Comment 35, Page 2-10:

2nd paragraph must be deleted. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as require by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

2.4.4 MDNR-Owned Former Impoundment Sediment Investigation

Comment 36, Page 2-11:

1st paragraph references Draft Technical Memorandum 12. The Draft Tech Memo 12 has not been approved by the MDEQ and therefore should not be cited in this RI. The reason, according to the numerous comment letters from the MDEQ to the Liable Parties, that the Draft Tech Memo 12 could not be approved because the draft was technically inaccurate and incomplete. The Draft Tech Memo 12 is not final because the Liable Parties refused to final this and other Draft Tech Memos. Any reference to Draft Tech Memo 12 must be deleted from the RI/FS. The MDEQ must seize control of the site immediately and final the Draft Tech Memo 12 so that it is technical accurate and complete.

Comment 37, Page 2-11:

Delete the entire last paragraph. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

2.5 Surface Water Investigation

Comment 38, Page 2-12:

Delete the last sentence of the 1st paragraph. The 1st paragraph references Draft Technical Memorandum 16. The Draft Tech Memo 16 has not been approved by the MDEQ and therefore should not be cited in this RI. The reason, according to the numerous comment letters from the MDEQ to the Liable Parties, that the Draft Tech Memo 16 could not be approved because the draft was technically inaccurate and incomplete. The Draft Tech Memo 16 is not final because the Liable Parties refused to final this and other Draft Tech Memos. Any reference to Draft Tech Memo 16 must be deleted from the RI/FS. The MDEQ must seize control of the site immediately and final the Draft Tech Memo 16 so that it is technical accurate and complete.

Comment 39, Page 2-13:

Delete the last paragraph of this Section 2.5. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

2.5 Biota Investigation

Comment 40, Page 2-13:

Delete the last two sentences of the 1st paragraph. The 1st paragraph references Draft Technical Memorandum 14. The Draft Tech Memo 14 has not been approved by the MDEQ and therefore should not be cited in this RI. The reason, according to the numerous comment letters from the MDEQ to the Liable Parties, that the Draft Tech Memo 14 could not be approved because the draft was technically inaccurate and incomplete. The Draft Tech Memo 14 is not final because the Liable Parties refused to final this and other Draft Tech Memos. Any reference to Draft Tech Memo 14 must be deleted from the RI/FS. The MDEQ must seize control of the site immediately and final the Draft Tech Memo 14 so that it is technical accurate and complete.

2.6.1 Aquatic Biota Investigation

Comment 41, Page 2-14:

Delete the last sentence of the 1st paragraph. The 1st paragraph references Draft Technical Memorandum 14. The Draft Tech Memo 14 has not been approved by the MDEQ and therefore should not be cited in this RI. The reason, according to the numerous comment letters from the MDEQ to the Liable Parties, that the Draft Tech Memo 14 could not be approved because the draft was technically inaccurate and incomplete. The Draft Tech Memo 14 is not final because the Liable Parties refused to final this and other Draft Tech Memos. Any reference to Draft Tech Memo 14 must be deleted from the RI/FS. The MDEQ must seize control of the site immediately and final the Draft Tech Memo 14 so that it is technical accurate and complete.

Comment 42, Page 2-15:

Delete last sentences of 2nd paragraph. Delete the last sentence of the 1st paragraph. The 1st paragraph references Draft Technical Memorandum 14. The Draft Tech Memo 14 has not been approved by the MDEQ and therefore should not be cited in this RI. The reason, according to the numerous comment letters from the MDEQ to the Liable Parties, that the Draft Tech Memo 14 could not be approved because the draft was technically inaccurate and incomplete. The Draft Tech Memo 14 is not final because the Liable Parties refused to final this and other Draft Tech Memos. Any reference to Draft Tech Memo 14 of its Addendum must be deleted from the RI/FS. The MDEQ must seize control of the site immediately and final the Draft Tech Memo 14 so that it is technical accurate and complete.

Comment 43, Page 2-15:

Delete the 3rd paragraph. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

2.6.2 Terrestrial Biota Investigation

Comment 44, Page 2-16:

Delete the last sentence of the 3rd paragraph. Delete the last sentence of the 3rd paragraph. The 3rd paragraph references Draft Technical Memorandum 14. The Draft Tech Memo 14 has not been approved by the MDEQ and therefore should not be cited in this RI. The reason, according to the numerous comment letters from the MDEQ to the Liable Parties, that the Draft Tech Memo 14 could not be approved because the draft was technically inaccurate and incomplete. The Draft Tech Memo 14 is not final because the Liable Parties refused to final this and other Draft Tech Memos. Any reference to Draft Tech Memo 14 of its Addendum must be deleted from the RI/FS. The MDEQ must seize control of the site immediately and final the Draft Tech Memo 14 so that it is technical accurate and complete.

Comment 45, Page 2-16:

Delete the 4th paragraph. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

2.7 Data to Support Remedial Alternatives Development and Analysis

Comment 46, Page 2-16:

Delete the entire section. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

The statement "(which were neither approved nor disapproved by the MDEQ)" is not true. No work plans for these studies were submitted to the MDEQ for review, so the MDEQ was never given the chance to approve or disapprove. This is the deceptive spin we see through out the RI/FS.

Section 3 – Physical Characteristics of the Site

Comment 47, Cover Sheet::

The statement that "The river are a stable system" is incorrect and demonstrates how little the Liable Parties and BB&L know about the river. Delete the statement. The text under "Impounded Areas" and "Free-Flowing Reaches" must be deleted because the statements are very general and inaccurate descriptions of these areas.

Comment 48, Cover Sheet::

Delete the statement "when the dams were opened by the MDNR in the early 1970's, PCB-containing sediment was released downstream" because there is no support for this statement.

Comment 49, Page 3-1

An inappropriate reference to Morrow Lake appears through out the RI/FS and must be deleted because Morrow Lake is not part of the site. The text should indicate that the site starts at the Morrow Lake dam or below the Morrow Lake dam.

3.4 Hydrology

Comment 50, Page 3.3:

Average flows provide very little insight into the transport of PCB in the river system. PCB transport occurs at all flows in this river, including the average flow, because there is so much PCB in the river sediments and exposed waste along the banks that the transport is not dependant on fluctuation in flow.

3.6 Soils and Floodplain Soils

Comment 51, Page 3-12:

The Liable Parties have neglected to mention that most of the floodplain soils in all the impounded areas (i.e. Plainwell, Otsego City, Otsego, Trowbridge, Allegan City, and Allegan Impoundment) are covered by the PCB contaminated gray clay paper residuals.

3.7 Exposed Sediment in State-Owned Former Impoundments

Comment 52, Page 3-13:

Delete the shaded box. There is no support for the statement that 1 million cubic yards of PCB sediments were released. Also there is absolutely no evidence to support that natural recovery has occurred in the past, is occurring now or will occur in the future. So the Liable Parties claim that the draw down "reversed the positive effects of on-going natural recovery processes" it unsupported and must be delete throughout the RI/FS.

Comment 53, Page 3-13:

The water in the three former impoundment areas were drawn down by opening the gates on the dam in the early 1970's. This draw down took a long time. However, the system stabilized for approximately 10 years before the super structure was removed from the three dams. This is not a chain of events that happened fast and the Liable Parties have no measurements to support their claims that 1 million cubic yards of PCB contaminated sediments was released. Without direct measurements to support their claims the Liable Parties are just speculating without any basis. Delete all such unsupported speculations though out the RI/FS.

Comment 54, Page 3-14:

1st paragraph neglects to mention that one of the greatest affects on habitat would be the deposition of the clay paper residuals, which destroyed the water transport systems in the wetlands. This must be discussed. Also delete the last sentence because it is an unsupported accusation.

Comment 55, Page 3-13 to 3-15:

This section must be deleted and re-written by the MDEQ. The Liable Parties and BB&L have lost all credibility. They have taken information out of context and spun it into a very misleading and unsupported section.

3.7.1 Physical Characteristics

Comment 56, Page 3-16:

Once again the RI references a draft Technical Memorandum 12. The objection is once again raised because the Liable Parties have been informed as early as 1996 that this draft was unacceptable because it is technically inaccurate and incomplete. The MDEQ must take over and final this Technical Memorandum 12.

3.7.1.1 Former Plainwell Impoundment, 3.7.1.2 Former Otsego Impoundment, & 3.7.1.3 Former Trowbridge Impoundment

Comment 57, Page 3-16:

The RI understates the extent of the PCB contaminated paper residuals. The majority of the former impoundment is covered with this material.

Comment 58, Page 3-16:

The RI is incomplete because it completely ignores the Otsego City Impoundment, Allegan City Impoundment, and Lake Allegan. This is a clear case of the Liable Parties intentionally violating the AOC, CERCLA and the NCP. The KRPA requests that the MDEQ remove Georgia Pacific Corporation, Fort James Paper Company, Plainwell Inc. and Allied Paper, Inc./Millennium Holding, Inc. from the site for cause and final the RI/FS.

Former Impoundment Wetland Assessment

Comment 59, Page 3-17:

The wetland assessment conducted by the Liable Parties is technically inaccurate and unacceptable.

Comment 60, Page 3-18:

Delete the 1st full paragraph. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight

during the collection of their data as require by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

3.7 Ecology

Comment 61, Page 3-21:

1st paragraph, 3rd sentence. The statement that the relatively common fur-bearers includes mink is incorrect. Mink are extremely rare on the site. The RI tried to collect mink on the Kalamazoo River and was basically unsuccessful (see MDEQ Technical Memorandum on Mammal Collection 1996). The reason it was unsuccessful is because mink reproduction is being prevented by the PCBs. Change the sentence.

3.9 Demography and Land Use

Comment 62, Page 3-25:

The 12th Street Landfill may be next to the Plainwell Dam but it is adjacent to the Kalamazoo River. This should be corrected.

Comment 63, Page 3-26:

The statement that eagles nest successfully in the Ottawa Marsh is extremely misleading. For seven years the eagles failed to nest successfully and than a new pair of eagles nest on the river and are successful one time. As the new pair of eagles ingest more and more PCB their nesting will also fail. Correct this sentence to reflect reality.

Section 4 – Nature and Extent of Contamination in the Kalamazoo River System

Comment 64, Cover sheet – Hand

Delete the text by the hand symbol. These statements are unsupported.

Comment 65, Cover Sheet – Under Picture

Delete this statement. This kind of erosion occurs in all reaches of the river not just in the “MDNR’s former impoundments”.

Comment 66, Cover Sheet – River wide results

Delete the statement that “There are no hot spots” it is incorrect. The hot spots are all the areas behind every dam and up around the Georgia Pacific properties. The Liable Parties have been informed of this numerous times by the MDEQ.

Comment 67, Cover Sheet – Sediment Investigation

The word “low” in the 3rd bullet is inaccurate. The sentence should be changed to state that “Surficial concentrations are high – 97% of PCB results were above 0.12 ppm, the sediment cleanup number. The sediment cleanup number for Human Health should also be listed. The 97% is a known number but the real number could be as high as 99%.

Comment 68

Delete the 3rd bullet. This is unsupported claim.

Comment 69, Cover Sheet – Surface Water Investigations

Delete the first bullet. The Liable Parties used a method in 1994 that had an unacceptable detection level so this comment is meaningless. However, this bullet should read, “The data from the Long-term Monitoring program conducted by the MDEQ is clear evidence that PCB in the water column was detected 100% of the time at levels that are in violation of the state of Michigan Water Quality Standards in the site.”

Comment 70, Page 4-1:

Shaded Box – First bullet is incorrect and needs to be replaced. The hot spots are all the areas behind every dam and areas around the Georgia Pacific properties. The Liable Parties have been informed of this numerous times by the MDEQ. The sentence should be changed to state that “Surface concentrations are high – 76% of PCB results were above 0.12 ppm, the sediment cleanup number. The sediment cleanup number for Human Health should also be listed. The 76% is a known number but the real number could be as high as 99%.

Comment 71:

2nd bullet is misleading and must be rewritten. All areas of PCB need to be discussed.

Comment 72:

3rd bullet is incorrect and must be rewritten. The river does transport PCB into the floodplain. Significant amounts may not be transported out past the 100 year flood elevation.

Comment 74:

4th bullet needs to be verified by the MDEQ.

Comment 75:

5th bullet is extremely misleading, delete it. There was nothing voluntary about any response action conducted to date. All response actions occurred only after long delays by the Liable Parties and the MDEQ threatening to conduct the response action and sent them the bill.

Comment 76:

6th bullet is incorrect and must be deleted. The only major sources of PCB are the Liable Party's mills, lagoons, landfills and discharges.

Comment 77, Page 4-1:

Under the AOC, CERCLA, NCP, and EPA guidance the RI must include an assessment of the exposed sediments upstream of the Otsego City and Allegan City Dams. Failure to do so is cause under the AOC for removal of the Liable Parties from the site.

Comment 78, Page 4-1:

Delete the 3rd paragraph. The Morrow Lake is not part of the site and all references to it must be deleted.

4.1 Floodplain Soils

Comment 79, Page 4-2:

The first sentence is incorrect and must be deleted. The correct conclusion is that the river does not appear to have transported significant amounts of PCBs past the 100 year flood elevation.

Comment 80, Page 4-2:

Delete the first box it is incorrect. Floodplain soils outside the former impoundments are areas of concern and most have not been investigated.

4.1.1 PCB in Floodplain Soils

Comment 81, Page 4-2:

Delete the first box it is incorrect.

Comment 82, Page 4-2:

This entire section is misleading and needs to be re-written by the MDEQ. The Liable Parties have manipulated the samples to present a misleading picture. The RI should not state "low concentrations of PCB". Where ever these statements appear the data must be presented and compared to the appropriate cleanup level.

Comment 83, Page 4-2:

Delete the 2nd shaded box because the Morrow Lake is not part of the site.

Comment 84, Page 4-3:

The 1st and 2nd paragraphs are incorrect and need to be re-written by the MDEQ. The 1st paragraph needs to state that "all sediments and erodible flood plain soils must be below 0.12 ppm. This will put the PCB concentrations into perspective. The last sentence of the 2nd paragraph must be deleted because it is incorrect. The Residential Direct Contact Criteria is not appropriate for the sediments or floodplain. This number would be 0.12 ppm from the ERA. The Liable Parties have consistently refused to include any cleanup criteria in the RI and the only way it will be included is if the MDEQ writes the RI/FS. Also this refusal is cause to remove the RI/FS from the Liable Parties and them from the site.

Comment 85, Page 4-4:

Section 4.2 references the Draft Technical Memorandum 12. This is unacceptable, delete it.

4.2.1 PCB in Exposed Sediments

Comment 86, Page 4-4:

The average concentration of PCB in the exposed sediments, presented in the RI do not represent the existing conditions. The limited sampling in these areas was designed just confirm that PCB was present and how far out away from the river the PCB contamination extended. The MDEQ and the Liable Parties agreed that the gray clay in the river or floodplain was contaminated with PCB and there was no reason to spend their money to conduct to intensively sampling of these areas just to verify what was already known. Consequently, this statement needs to be qualified and not presented as if this is an accurate picture. If more sampling was conducted the averages concentrations would at least double and probably triple. This has been the case at every other location on the site where a few samples were taken, which detected PCB was followed up by more intense sampling on a grid. The KRPA does not want more sampling in these areas because we know they are heavily contaminated. However the KRPA does want a removal action like the one conducted at Bryan Mill Pond. Statements about the averages need to be qualified and the text should also present the maximum concentrations in these areas as well.

4.2.2 PCB Loading from Banks of Former Sediments

Comment 87, Page 4-6 to 4-8:

This entire section needs to be re-written by the MDEQ. The Liable Parties never submitted a work plan for approval to the MDEQ and they did not allow the MDEQ to provide oversight for this investigation. They were informed by the MDEQ that the work was technically unacceptable. However, they did submit letters after the work was complete and again were informed by the MDEQ that it was not acceptable because the method used to conduct the investigation were highly questionable. The unapproved work must be deleted from the RI because it was collected using highly subjective and questionable methods.

Comment 88, Page 4-6:

The RI fails to include the Otsego City and Allegan City Impoundments in this discussion. Both of these areas contain the same exact situation as the three mentioned in this section. These areas are so similar that they must be included altogether and all need to be cleaned up by totally removing all the PCBs just like was done at Bryant Mill Pond.

Comment 89, Page 4-7:

The last paragraph in this section must be deleted because it references the Liable Parties unapproved work.

4.2.3 Total Solids and Total Organic Carbon in Exposed Sediments

Comment 90, Page 4-8:

Delete this section and have MDEQ re-write it. This section is based totally on draft Technical Memorandum 12, which the MDEQ determine to be technically inaccurate, incomplete and misleading.

4.3 Sediment

Comment 91, Page 4-9:

Delete the shaded box. There are definitely "hot spots" and those are the areas behind the dams and the Georgia Pacific properties. All former sediment areas behind all the dams, all river sections behind the dams, and all river and floodplain areas around the GP 5 former lagoons, the KSSS area, the Willow Boulevard just to name a few. The Liable Parties just do not want to break the site up into remediation units because that would lead to a cleanup.

Comment 92:

The 2nd, & 3rd bullets need to compare PCB concentrations to the cleanup criteria of 0.12 ppm instead of inappropriate and meaningless numbers like 1 and 10 ppm.

Comment 93:

The 4th bullet should be deleted.

Comment 94, Page 4-9:

The RI must state that "The sediment cores were divided from the top down into sections starting at 0 to 2", 2" to 6" and then every foot after to the end of the core. This was done at the insistence of the Liable Parties because they believed, prior to sampling, that the top 2" would be clean and show that natural attenuation was occurring. However when the data was reviewed the top 2" was the most heavily PCB contaminated area of the site. This conclusively shows that natural attenuation is not and has not been occurring at the site." To deal with the fact that the top 2" did not support their conclusions or remedial proposal they intentional neglect to discuss this section of the cores. Instead they discuss 0 to 6" or 0 to 12" which mask this information in an attempt to deceive the MDEQ and the public. The MDEQ must rewrite the RI/FS.

Comment 95, Page 4-9:

Delete the 2nd bullet it is incorrect.

Comment 96, Page 4-10:

Delete the 4th bullet it is unsupported and overstates the situation.

Comment 97, Page 4-11:

The statistical methods used appear to be inappropriate. These methods must be reviewed by the MDEQ.

4.3.1 PCB in Sediment

Comment 98, Page 4-10:

Delete the shaded box. These samples must be compared to 0.12 ppm the cleanup criteria not to meaningless numbers like 1 and 10 ppm.

Comment 99, Page 4-10:

The statement that the PCB was general low must be deleted because it is subjective and incorrect. When compared to the appropriate cleanup criteria of 0.12 ppm the PCB concentrations in the samples are very high. The MDEQ needs to re-write the section.

Also the statement that certain percentage of samples are non-detect is misleading as present here and should be deleted because it provides no useful information. During an RI there will always be a certain percentage of samples that are non-detect. Without these samples you could not determine the extent of the contamination. Also given the fixed transect approach used this would increase the number of non-detects.

Comment 100, Page 4-11:

Delete this section. The MDEQ must re-write this section. The Liable Parties have intentionally not compared the data to the cleanup criteria of 0.12 ppm making this entire section meaningless and misleading.

4.3.1.1 Spatial Distribution of PCB in the Sediment

Comment 101, Page 4-12:

Delete this section. The MDEQ must re-write the entire section.

Surface Area Weighted Average is not an acceptable method for determining the average concentrations. This is not a statistical method and must be replaced by an appropriate statistical method.

Comment 102, Page 4-13:

The geostatistical study conducted by BB&L was reviewed by the EPA and the MDEQ and determined to be technically inaccurate. The decision was made not to approve the study and not to use the study because of its numerous technical problems. See the Administrative Record. All mention of the study must be deleted from the RI.

4.3.1.2 Relationships among Water Velocity, Particle Size and PCB Concentrations

Comment 103, Page 4-14:

This section needs to be deleted and rewritten by the MDEQ. This section is based upon a visual classification scheme that the MDEQ determined to be technically unacceptable. All reference to this visual grain size determination must be deleted from the RI/FS.

The Administrative Record indicated that the MDEQ never approved any of this work or the findings. The Liable Parties are trying to mislead the MDEQ and the public. The entire discussion presented in this section is without any technical basis. When MDEQ applied the appropriate statistics it was determined that a correlation between grain size and PCB concentration did not exist. In other words the PCBs are located in both the fine and coarse grain sediments about an equal amount of the time.

Delete the foot note. According to the Administrative Record the MDEQ rejected both the reclassification and sensitivity analysis conducted by the Liable Parties because they were technically inaccurate.

Delete the shaded box because it is technically inaccurate.

4.3.1.3 Relationship of PCB to Sediment Depth and Sample Depth

Comment 104, Page 4-17:

The Liable Parties have succeeded in finding the deepest spot (20 feet) on the site. It should be noted that throughout the RI/FS the Liable Parties have used unacceptable statistical methods to derive averages to make the PCB concentrations appear lower. However they use maximums to discuss things such as sediment depth, area covered by PCB contamination and cost in an effort to mislead through exaggeration.

Comment 105:

The correlation between PCB concentration and sediment depth is weak and this discussion should be deleted.

Comment 106:

Delete the last paragraph it is inaccurate and not supported by the RI data. The statement made in this paragraph that removal would target the deepest, highest volume deposits of PCB contaminated sediments completely ignores the fact that all the sediments above the deepest sediments are all contaminate and must be removed. The RI data clearly indicates that the top two inches across the site are the most contaminated and that natural attenuation, by burial, is not occurring at this site. The Liable Parties have combined the top two inches into the top 6" or foot in order to obscure this fact and mislead the MDEQ and the public.

4.3.1.4 Relationship of PCB to Sediment Depth and Sample Depth

Comment 107, Page 4-18:

This section is technically inaccurate and needs to be deleted. The correlation between PCB concentrations and the distance from the Morrow Dam is very weak. So weak in fact it is negligible. Also the distance from the Morrow Dam is insignificant. The distance from the PCB sources, which are the paper mill, discharges, lagoons, and landfills would be significant. Obviously the Liable Parties are using the Morrow Dam to shift attention away from all their properties where the discharges and releases to the river and creek originated.

4.3.1.5 Relationship of PCB to Total Organic Carbon

Comment 108, Page 4-19:

This section can be deleted because the correlation between PCB and TOC is very weak. This section, like the others, provides very little useful information.

4.3.1.6 Multivariate Regression Analysis

Comment 109, Page 4-20:

If the regression is run correctly you find that TOC content and particle size are the most significant variables but the correlation to PCB distribution is very weak and is therefore not very useful information. This section can be deleted.

4.3.1.7 PCB-Containing Sediment Volume and PCB mass in Kalamazoo River Sediment

Comment 110, Page 4-22:

Delete all reference to Morrow Pond because it is not part of the site. The RI overestimates the volume of sediments by taking the deepest depth that PCB was detected in each reach and applying that depth it to the whole reach in the calculations. The MDEQ must rewrite this section and provide better estimates of volume. Since the coarse and fine grain classification is not approved the calculation using these numbers are most likely inaccurate. The total volume of sediments is obviously over estimated by at least 950,000 cy because it includes Morrow Lake sediments, which is not part of the site.

4.4.1 Focused Sampling of Exposed Sediment

Comment 111, Page 4-26:

Once again the RI compares PCB concentrations to 1 ppm & 10 ppm instead of the cleanup criteria of 0.12 ppm. The MDEQ needs to rewrite this section.

4.4.3 Focused Sampling of Kalamazoo River Floodplain

Comment 112, Page 4-27:

Focused sampling should not be a section. This sampling was designed to fill in data gaps in the RI not stand along.

Comment 113, Page 4-28:

Last paragraph and throughout this entire section dealing with focused sampling the RI tries to compare the 1993/1994 data to the focused sampling. Delete the paragraph. With the extremely limited data these conclusion are not meaningful. The MDEQ needs to rewrite this section.

Comment 114, Page 4-29:

Delete this section. Decreased accessibility is used as an excuse to treat the island data different from the floodplain samples. This is unacceptable, the island data should be treated just like the floodplain samples.

4.5 Surface Water

Comment 115, Page 4-31:

Delete first bullet. The detection of PCB in surface water upstream of the site are extremely very few and are not significant compared to that detected in the site.

Comment 116:

Delete second bullet and rewrite. The reason 74% of the 1994 samples were non detect is because the Liable Parties used a detection level that was too high. This should be stated. The way this is written, it leads the reader to believe that PCB was not present and we know that is not the case.

Comment 117, Page 4-32:

Delete all reference to the draft Technical Memorandum 16 that the MDEQ determine to be technically inaccurate, incomplete and misleading.

Comment 118, Page 4-33:

The 4th paragraph needs to state the findings of the LMMBS. This study found that the Kalamazoo River continues to transport approximately 150 to 200 pounds of PCB in to Lake Michigan from the site every year. This is a good indicator that PCBs are not being buried and natural attenuation is not occurring. The MDEQ must delete this paragraph and rewrite it stating these facts. This is further proof that the Liable Parties have not presented an accurate or complete picture of the nature and extent of contamination at the site in the RI as required by the AOC, CERCLA and the NCP. The MDEQ must remedy this by taking over and rewriting the RI/FS.

Comment 119, Page 4-33:

As part of the RI the MDEQ collected water samples for purposes of long-term monitoring. The Liable Parties failed to include these results in the RI. The results of the long-term monitoring study clearly demonstrate that the PCBs are moving in the water column throughout the site and that natural attenuation is not occurring at the site. The MDEQ needs to delete this paragraph and rewrite it.

Comment 120, Page 4-33:

Delete the last paragraph. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

4.5.1 Spatial Distribution of PCB Concentration in Surface Water

Comment 121, Page 4-33:

Delete the first bullet. These detections are insignificant; this should not be a bullet. The first bullet should state that any detection of PCB in the surface water is a violation of the state Water Quality Standard (WQS). The WQS is 0.000026 ug/l.

Comment 122, Page 4-34:

Delete the shaded box. The PCB concentrations are not low. Compared to the WQS these PCB concentrations are very high.

Comment 123, Page 4-34:

The 1994 sampling used an unacceptably high detection level. So to constantly point out that there were non detects as if it there was not PCBs at levels of concern is unacceptable. This is the tactics of the Liable Parties to mislead the MDEQ and the public. The MDEQ needs to rewrite the RI/FS so the document will be technical accurate and complete.

1994/1995 LMMBS Surface Water Data

Comment 124, 4-35:

The Liable Parties once again neglected to mention that there was 100% of the samples contained detectable PCB. And 100% exceeded the WQS making them violations of the WQS. The MDEQ must rewrite this paragraph.

1999/2000 MDEQ Surface Water Data

Comment 125, Page 4-35:

This study should be called the Long-term monitoring study. The Liable Parties once again neglected to mention that there was 100% of the samples contained detectable PCB. And 100% exceeded the WQS making them violations of the WQS. The MDEQ must rewrite this paragraph.

Summary

Comment 126, Page 4-36:

Delete the last two sentences of the paragraph because they are not supported by the data. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as require by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

Comment 127, Page 4-36:

Delete Figure 4-24, it is not referenced in the text.

4.5.2.2 Effect of Temperature and Season

Comment 128, Page 4-40:

The MDEQ must review and rewrite this section. Once again the Liable Parties have overstated what the data actually indicates. They also use the Aroclor 1016 tag to discuss PCB. During the discussion the RI should acknowledge that it is PCB and not really Aroclor 1016.

4.5.2 Mechanism of PCB Transport

Comment 129, Page 4-38:

The RI is misleading when it states that Aroclor 1016 was detected more at low flow and Aroclor 1242 (associated with the paper recycling) and 1248 were detected at high flow. If the RI is going to explain this observation this way it must explain that all the Aroclors (1016, 1232, 1242, 1248, 1254, & 1260) have all been detected in the Liable Parties landfills, lagoons and disposal areas. And that the analysis has identified a chemical substance that is similar to an Aroclor standard but the chemical is not that Aroclor. In other words, the source of all these different Aroclors is the Liable Parties waste. This must be stated in this section. In the 3rd paragraph delete the "(the PCB product...)" because it is an inaccurate statement. Also it should be stated that the state of Michigan regulates on total PCBs. So it doesn't matter what Aroclor the PCBs look like because they all come from the Liable Parties wastes and since PCBs are regulated as total PCB it all must be removed from the site.

4.5.2.1 Effects of Flow on PCB Concentration

Comment 130, Page 4-38:

The statement must be made up front that "No matter what the flow in the river is PCBs are being transported downstream all the time. The change in flow can only increase the transport of PCBs down the river and out into Lake Michigan. This is documented by the LMMBS data and the long-term monitoring data."

Comment 131, Page 4-38:

Delete the shaded box because the bullets are very misleading.

Comment 132, Page 4-38:

Delete the 2nd paragraph and have MDEQ rewrite. The statement must be made that "The reason there are so many non detects in the 1994 data set is because the Liable Parties used an unacceptably high detection limit and not because the PCBs were not present in the water. A comparison of the 1994 data to the Long term monitoring data and the LMMBS proves this to be the case."

It is our assessment that the 1994 data due to the use of unacceptably high detection limits is usefulness. Consequently, no conclusions should be drawn from this data. This appears to be another example of the Liable Parties and their consultants, BB&L's, attempting to mislead. They should be removed from the site for failure to comply with the AOC.

Comment 133, Page 4-40:

Delete both the shaded box and the last paragraph of this section.

Comment 134, Page 4-41:

Delete the shaded box because it is irrelevant.

Comment 135, Page 4-41:

Obviously the Liable Parties are refusing to state the facts. The MDEQ will have to rewrite this section and state that "According to the surface water data the PCB concentration detected in the water exceed the WQS 100% of the time. Any concentration of PCB that exceeds the WQS is also above a level that is consider safe for both human health and the environment." This must be stated in this RI.

Comment 136, Page 4-42:

Delete the last two sentences of the last paragraph because they are irrelevant.

4.5.2.3 Effects of Sediment Resuspension/TSS

Comment 137, Page 4-42:

Delete the shaded box because it is irrelevant.

Comment 138, Page 4-42:

Delete the last paragraph because it is irrelevant. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as require by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

4.5.2.4 Multivariate Regression Analysis

Comment 139, Page 4-44:

Delete this entire section and all statistics throughout the document. A review of the statistical methods used indicate that the Liable Parties shopped around for a method that could be manipulated in order to support their preconceived ideas. Also the statistics are interpreted incorrectly. In the case of TSS and PCB concentration the correlation is not significant ($p < 0.05$) on page 4-42 however on page 4-44 TSS and flow are significant ($p < 0.05$) for predicting variability in PCB concentration.

Comment 140, Page 4-44:

Delete the last paragraph. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

4.5.3 Trends in Surface Water PCB

Comment 141, Page 4-44:

Any decline in surface water concentration is directly correlated to the NPDES permit program, and removal actions along the river. This needs to be stated. Delete the last paragraph because it relies on draft Technical Memorandum 16 that the MDEQ found to be technically inaccurate, incomplete and misleading.

4.6 Biota

Comment 142, Page 4-46:

This is by far the most important data collected and the Liable Parties give it one sentence. This is a perfect example of why the Liable Parties should no longer be involved in this site. Whenever the data does not support their do-nothing proposal they do not present the data. The biota data screams for the total removal and restoration of the site. Eagle and mink can not reproduce, every organism tested is heavily contaminated with PCBs and the mink have the highest PCB concentrations found in the nation. Because the mink can not reproduce there are almost no mink living on the river where they once thrived.

4.6.1 PCB in Fish

Comment 143, Page 4-46:

Delete the 2nd bullet of the shaded box because the text is not supported by the RI data. There is no way to determine the original source of the PCB in the tissue of the fish collected. However, the Liable Parties are the only major discharges of PCB to the site. To make a statement like this shows just how desperate these Liable Parties are and that they will say anything to push their do-nothing proposal. Any Liable Parties this desperate should not be allowed to participate in this site and write critical documents.

Comment 144, Page 4-46:

The statement must be included that " All fish collected that have levels of PCB of 0.02 ppm or greater in their tissues exceed a level that would be considered safe for wildlife to consume. All fish with PCB concentrations of 0.05 ppm or greater are considered to be unsafe for human consumption." This is why the Fish Consumption Advisories have been in effect since 1971. Then discuss how many fish did exceed these levels." The MDEQ must delete the paragraph and rewrite it.

4.6.1.1

Comment 145, Page 4-46:

Delete the paragraph and have the MDEQ rewrite it. The paragraph cites draft Technical Memorandum 14 that was determined to be technically inaccurate, incomplete and misleading.

Comment 146, Page 4-46:

A discussion of the decrease in lipids in Lake Allegan and the corresponding decrease in PCB concentrations must be added to the section.

4.6.1.3 1999 Fish Data

Comment 147, Page 4-48:

Delete the paragraph because it is irrelevant. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

4.6.1.4 Determinants of Fish Tissue PCB Concentrations

Comment 148, Page 4-49:

2nd paragraph delete the last sentence it is irrelevant. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

Comment 149, Page 4-49:

Delete the 3rd paragraph. Paragraph cites draft Technical Memorandum 14 that was determined to be technically inaccurate, incomplete and misleading.

Comment 150, Page 4-49:

In the MDEQ rewrite of the 4th paragraph it must be stated that the yearling fish exceed the safe level for human or wildlife consumption. This information needs to be included in the RI because it is significant.

Comment 151, Page 4-50:

Delete the last paragraph because it is factual incorrect and misleading.

4.6.2 Other Constituents in Fish

Comment 152:

Delete the 3rd paragraph and have the MDEQ rewrite it. The paragraph cites draft Addendum 2 of draft Technical Memorandum 14 that was determined to be technically inaccurate, incomplete and misleading.

4.6.3 PCB in Turtles

Comment 153:

Review of this data indicates that the processing of the samples was unacceptable and the data should not be used to draw any other conclusions except that the turtles are contaminated with PCBs.

4.6.5 PCB in Terrestrial Biota

Comment 154 , Page 4-52:

This entire section must be rewritten by the MDEQ. The fact that mice, a seed eater, has any PCB in them is alarming. The worms would be expected to have levels of PCBs that are 1ppm or less. This is common for all lower trophic level organisms at this site.

Comment 155, Page 4-52:

Delete the 1st paragraph. The RI lacks the appropriate discussion and cites draft Technical Memorandum 14 that was determined by the MDEQ to be technically inaccurate, incomplete and misleading.

4.7 Sources of PCB to the Site

Comment 156,Page 4-53:

Delete the last paragraph because it is factually incorrect. In this paragraph it states that the "1) KRSG sources have been controlled, or will be controlled, due to a series of response actions already accomplished or under way,. Our review of the site indicates that the only source of the KRSG that has been controlled is the King Highway Landfill and this landfill could have a release at any time. The sources that have not been controlled are the Georgia Pacific A-Site disposal area, Willow Boulevard disposal area, the floodplain of the 6 former lagoons, the Allied Paper disposal area with PCB contaminated groundwater, the floodplain at the King Street Storm Sewer, King Mill, and the Plainwell Inc. 12th Street Landfill. Since all these areas have been sources for over 30 years and the Liable Parties have refused to cleanup these area since at least 1971, this statement is obviously incorrect and must be delete.

Comment 157:

The paragraph also states the there may be sources other than the Liable Parties. Our reviews shows that the Liable Parties investigated this possibility for 10 years and even took 14 potential source industries to court and could not prove that there are other sources. The Liable Parties have proved that their waste is the only major source of PCB to this site.

4.7.1 Investigation and Remedial Activities at KRSG Mill Properties and OUs

Comment 158, Page 4-53:

Delete the entire section because it is factually incorrect. The MDEQ needs to rewrite. To call the actions of these voluntary is extremely misleading. Each and every action was taken only after the MDEQ threatened to conduct the action and bill the Liable Parties. Of coarse all these action occurred prior to the Liable

Parties getting the former Project Manager, Mr. Scott Cornelius, removed. Since then there have not been any actions taken by the Liable Parties that were not already in motion prior to Mr. Cornelius' removal.

Comment 159, Page 4-54:

At the Georgia Pacific Kalamazoo Mill, they refused to cleanup the floodplain or the PCB waste in the river that was clearly from the 5 former lagoons. That still must be done. The rip-rap must be removed so that the PCB waste below it can be removed.

At the King Street Storm Sewer, Allied Paper and Georgia Pacific refused to remove the PCB waste from the river or the remaining 2000 foot long floodplain area even though the PCB waste clearly came from the King Highway Landfill and the King Mill discharge.

The Allied Paper Inc. OU is a nice piece of fiction and needs to be rewritten by the MDEQ using the facts. There has never been any actions taken by Allied voluntarily. The removal that they financed was done under the same threat that the EPA would conduct the removal and bill Allied. Allied had many opportunities to conduct the removal starting in the 1970's when the state asked them to do it. There were no less than 8 opportunities given Allied to conduct the removal and each time they refused. However, the EPA and the Army Corp of Engineers did a spectacular job. This should be used as a model. The Agencies conduct the total removal of the PCBs from the site and the Liable Parties not be involved except for providing the funding for the work.

This OU continues to vent PCB contaminated groundwater to Portage Creek and re-contaminate the Bryant Mill Pond where the removal was conducted. The cap that is being placed on the landfill received no public comment period and that is a violation of CERCLA.

At Willow Boulevard, Georgia Pacific knocked down all the trees and spread sand. They refused to follow their approved work plan to remove the PCB waste out of the river from around the OU.

At the 12th Street Landfill the ROD has been delayed by both the Liable Parties and the MDEQ. The MDEQ has been negotiating the ROD with the Liable Parties, which appears to be a violation of CERCLA. The Administrative Record indicates that the MDEQ has provide at least two opportunities to the Liable Parties and they have provided two sets of comments. Each time the ROD has been delayed and changed. This ROD was scheduled to be final in 1997, than 1999, and than 2000. And it was final in April 2000 until the Liable Parties stopped its release. In 1999 the EPA even approved and it was final until the Liable Parties stopped its release.

The reason the Liable Parties are proposing an interim measure is to prevent the public from commenting on the proposal. This IRM is proposed by the Liable Parties to get out of doing the proper clean up. According to the site file, they are refusing to clean up the PCB waste that migrated out of the landfill into the wetlands, woodlands, river and adjacent property. The KRPA strongly objects and opposes all interim actions at this site because they are not necessary. The only reason interim actions are conducted are to prevent the public from commenting on the proposal.

Section 5

Comment 160, Cover Sheet – Trend analyses

Delete all three bullets because they are not supported by the RI data.

Comment 161, Cover Sheet – Transport of PCB is declining

Delete this because it is not supported by the RI data. Natural processes are not responsible for the decline in PCB in the water. Actions that resulted in the decline of PCB in the water are 1) 1971 - the removal of PCB from the carbonless copy paper; 2) better and better waste water treatment systems put in place at the paper companies; 3) better and better municipal waste water treatment plants where the Liable Parties sent their PCB waste 4) the removal of the major primary sources of PCBs to the site which were the PCB containing paper mill discharges of the Liable Parties; 4) 1976 - ban on PCBs in open systems 5) the lowering of the water level in the Plainwell, Otsego, and Trowbridge impoundments. The list goes on and on.

Comment 162 Page 5-1:

Section 5 must be deleted and rewritten by the MDEQ. There is absolutely no defensible scientific basis for this entire section. PCB is being transported downstream all the time. The sources of the PCBs are the sediments in the river, groundwater at Allied and Willow Boulevard landfills, and all the PCB waste in the floodplains. It does not matter if the river is high or low, it does not matter if the temperature is hot or cold, and it does not matter if the volume of PCB is greater in the sediments or the floodplain because the PCBs continue to be transported. The PCB also continue to be bioavailable and present an unacceptable risk to human health and the environment. This is going to continue until a removal action is conducted on the site to remove all PCB.

Comment 163, Page 5-1:

Delete the Summary Box.

Comment 164, Page 5-2:

Delete all reference to Morrow Lake because it is irrelevant and not part of the site.

5.1.1 Estimates of Annual PCB Transport in the Kalamazoo River

Comment 165, Page 5-3:

The RI appears to underestimate the amount of PCB being transported and the MDEQ should calculate the numbers and rewrite the section. However the amount of PCB being transported is secondary to the issue that the PCB is all bioavailable and only a removal action will remediate this problem once and for all.

Comment 166, Page 5-1:

Again delete all reference to the Liable Parties unapproved data.

Comment 167, Page 5-2:

Remove all reference to Morrow Lake it is irrelevant and not part of the site. Also delete the last sentence of the last paragraph. The RI data does not support the statement regarding decrease of PCB due to natural processes.

5.1.2 External Sources of PCB

Comment 168, Page 5-4:

Delete shaded box because it is incorrect. The section must be rewritten by the MDEQ and must include the Otsego City and Allegan City impoundments. Both of these contain large volumes of PCB waste in the floodplain.

Comment 169, Page 5-4:

The RI states that based on PCBs in fish tissue they can tell the source of the PCBs. This is technically incorrect and must be deleted.

Comment 170, Page 5-5:

The 2nd paragraph must be deleted and rewritten by the MDEQ to make it accurate. The description of the soft sediments, erosion of steep banks and exposed sediments occurs throughout the site and in every impoundment. To single out the Plainwell, Otsego & Trowbridge impoundments is technically inaccurate and unacceptable. To ignore the importance of the other impoundments with the exact same characteristics is also unacceptable. From our review it appears that the Liable Parties are highlighting the Plainwell, Otsego & Trowbridge impoundments to cut a deal with the MDEQ and get a quick settlement.

Comment 171:

Delete all reference to the Liable Parties unapproved data. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

Comment 172, Page 5-5:

Delete the last paragraph because it cites draft Technical Memorandum 14 that was determined by the MDEQ to be technically inaccurate, incomplete and misleading.

5.1.3 Internal Sources of PCB Transport

Comment 173, Page 5-6:

Delete the statement regarding outside sources and Morrow Lake because they are negligible if they even exist. The paragraph is technically inaccurate when it states that bioavailability to the food web is "limited to surface sediments and to a lesser extent surface water." The bioavailability of PCBs is extremely high in the surface water as indicated by the caged fish studies, the lipid bag studies conducted during the RI but not included in the RI by the Liable Parties. Again

this is data that directly refutes their natural attenuation argument and they have refused to include it in the RI.

5.2 Empirical Assessment of the Fate of PCB in the Kalamazoo River

Comment 174, Page 5-6:

Delete the shaded box because the bullets are statements that have no scientific support. Also delete the paragraph because it is technically unsupported by the RI data. The claim that PCB is steadily declining is false. Any decline in PCB is directly attributable to an action that reduced or eliminated a source. However the fact still remains that the Kalamazoo River Superfund site is still the most heavily contaminated river in the state of Michigan and is a health threat to the public and the environment. The only cleanup that will permanently solve this problem is the total removal of the PCBs.

Comment 175, Page 5-6:

Delete the 2nd paragraph because it is unsupported by RI data.

Comment 176:

Delete the first bullet that refers to geochronological sediment data. The conclusion that the rate of PCB deposition is decreasing is based on a data set that is unacceptable small, only a few core samples, and that were collected from areas that are not representative of the site. Although natural attenuation has never occurred at a significant rate, this decrease in rate of deposition would indicate that natural attenuation is occurring even less now than it did in the past. This reduction in deposition rate would also make sense in light of the fact that the MDEQ, the Kalamazoo Watershed Council, the EPA and the Department of Agriculture have taken actions to stop all non-point sources to the Kalamazoo River. The Davis Creek and Rabbit River are examples of these efforts to stop the input of sediments to the site.

Comment 177:

Delete the 2nd bullet. Any decrease in PCB concentrations in the water column is directly due to the actions listed in comment 161 that reduce or eliminate the sources of PCB. This bullet also refers to the Liable Parties unapproved data.

Comment 178:

Delete the 3rd bullet. The data indicates that the decrease of PCBs in the fish from 1980's to the 2000, about 20 years, is directly due to the actions listed in comment 161 that reduce or eliminate the sources of PCB. This bullet also refers to the Liable Parties unapproved data.

Comment 179:

Delete the last sentence and the three bullets because they are not supported by the RI data.

5.2.1 Sediment Trend Analysis

Comment 180:

Delete the shaded box because it is not supported by the RI data.

Delete this entire section. The geochronological data base is 5 cores from two areas on the site that are not representative of the rest of the site. Therefore the data base is too small to base any defensible conclusions and these conclusions can not be extrapolated to the rest of the site. The reason the data base is so small is because on the entire site the Liable Parties could only find two very small areas on this 80 mile site that would support their proposal. It should be noted that the MDEQ never supported this data collection.

5.2.2 Surface Water Trend Analysis

Comment 181, Page 5-9:

Delete the shaded box, the two bullets are not supported by the RI data. Delete the section and have the MDEQ rewrite it. The 1994 data is useless for analysis because of the unacceptably high detection limit. The Liable Parties have used graphical and inappropriate statistical methods to support their argument. As stated previously any decline in PCB from the 1980's to 1994 is due to the actions taken to reduce or eliminate the PCB sources (see comment 161) and not natural attenuation.

Comment 182, Page 5-10:

Delete this graph. In this graph the Liable Parties fit a line to the data and the tail of that line magically goes out and meets 0 ug/l. This is a function of the equation or model they used and is not reality. They do not know anything about PCB concentrations with any certainty past the last data set. In the future the concentration of PCB will go up if the river channel moves which it will do eventually and there is nothing that can be done to stop this movement. The line on this graph could be flat with out any decline in PCB concentrations. We understand the river and PCB too well to believe that this graph represents the existing situation or can predict the future. If this were accurate and natural attenuation was occurring with a half-time of 4.6 years this site should have already achieved non detectable PCB concentrations in fish, water and sediments. However this has not been achieved over the last 45 years. Obviously this is scientifically indefensible and must be completely deleted from the RI/FS. In order to accomplish this the MDEQ must take over the writing of

the RI/FS. What the Liable Parties refuse to state is that all detections of PCBs in the water column are violations of the WQS and a risk to human health and the environment. This needs to be stated in the RI.

Comment 183, Page 5-11:

Delete the last paragraph and all reference to the Liable Parties unapproved data. The Liable Parties are attempting to include, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

5.2.3 Fish Trend Analysis

Comment 184, Page 5-11:

Delete the section and the MDEQ must rewrite it. The small decrease in PCB concentrations since the 1980's is directly correlated to the actions (see comment 161) taken to control or eliminate the sources of PCBs discussed previously. However after the initial decline in the 1980's the data levels off. This is a good indication that if the PCBs are removed from the site the fish will respond. In Lake Allegan the decrease in PCB concentrations in carp is not occurring. The apparent decrease is actually a decrease in lipid content in the carp due to poor health. The PCBs may be causing the poor health of the carp. The PCB decrease is directly linked to the poor health and low lipid content. Four data sets convincingly refute the Liable Parties claims of decreasing PCB concentrations. The PCB concentrations in fish downstream of Lake Allegan are increasing. The lipid bag studies, caged fish studies and the yearling fish studies all confirm that the PCBs are readily bioavailable for uptake by the fish in all river reaches of the site. This indicates that there is not any decrease in PCBs in fish occurring and the PCBs have leveled off or in some cases, like below Lake Allegan, are increasing. The important thing to note is that the Kalamazoo River PCB concentrations in fish are orders of magnitude above the Fish Consumption Advisory level of 0.05 ppm and any other bodies of water in the state.

Comment 185, Page 5-11:

Delete the 2nd paragraph because it cites draft Technical Memorandum 14 that was determined by the MDEQ to be technically inaccurate, incomplete and misleading.

Comment 186, Page 5-14:

After careful review we have determined that the section is so scientifically flawed that the entire trend analysis must be deleted. The statistical methods used, the interpretation and conclusions are highly questionable. The Liable Parties obviously have too much at stake to be objective in this matter. The MDEQ must takeover and write the RI/FS.

5.2.3.1 Indications Regarding Fish Consumption Advisories

Comment 187, Page 5-14:

Delete the shaded box and the entire section because it is not supported by the RI data. Based upon the RI data there is no basis for changing any of the advisories. The Liable Parties submitted the same request prior to writing the RI/FS and were informed that changing the advisories was not justified. Also the conclusions presented in this RI that the Liable Parties base their predictions for lifting of the advisories are scientifically indefensible.

Comment 188:

The ATSDR 2000 angler study is a study that was full of problems and should not be used or cited in the RI.

5.3 Systems Analysis of the Kalamazoo River

Comment 189, Page 5-17:

The Liable Parties were instructed not to include any of the data or information they collected outside the AOC and Superfund program. The information contained between pages 5-17 to 5-26 is this information. This must all be deleted.

Section 6 – Risk Assessment

Comment 190:

In 1990 the decision was made, by the EPA and the MDEQ, that the Liable Parties could not be trusted to conduct an objective HHRA and ERA. So the task of conducting these risk assessments was carved out in the AOC and given to the MDEQ. The MDEQ and Camp, Dresser & McKee (CDM) working with the EPA on the risk assessments has done an outstanding job. The public would like to thank the former site Project Manager for the MDEQ, Ms. Scott Cornelius, and

all the individuals at CDM (a special thanks to Mr. Ronald French, Mr. Tony Gendusa and Ms. Christine Rioux) for their many years of hard work and an outstanding job.

Under the AOC the Liable Parties can not conduct the risk assessment. So the one million dollars that they have paid to Dr. Giesy to produce a risk assessment is a waste of time and money. The Liable Parties try to included by reference, in the RI/FS, their own subjective risk assessment based on data that was not collected under the AOC and the Superfund program. The AOC strictly prohibits the Liable Parties from performing and including their risk assessment in the RI report. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. Consequently, their risk assessment and all reference to their risk assessment must be deleted from the RI/FS.

It is now obvious that the decision should have been not to let the Liable Parties write any of the documents because they can not be trusted to do a objective and competent job. If fact they have used their participation to delay the cleanup of the site every step of the way. What should have taken a maximum of three years to accomplish is now in it 11th year and is still not complete.

The Liable Parties refused to include the findings of the Ecological Risk Assessment and the Human Health Risk Assessment in the RI as required by, the AOC, the EPA guidance, CERCLA and the NCP. The findings of the Ecological and Human Health Risk Assessments must be included in the RI/FS without the Liable Parties inappropriate attacks on these findings.

Comment 191:

Cover Sheet – What is the status of PCB levels in fish?

Delete this text because it is not supported by the RI data.

Comment 192, Page 6-1:

The entire Risk Assessment Section must be deleted and rewritten by the MDEQ. The statements made in this section amount to only subjective opinions of the Liable Parties and have no scientific bases. In this section the Liable Parties try to discredit the Human Health Risk Assessment (HHRA) and the Ecological Risk Assessment (ERA) which were developed as a closely coordinated project between the EPA and the MDEQ and approve by both agencies. These risk assessments are applicable to an area of the site

The Liable Parties wrongly refer to the ERA as a "Screening –level risk assessment" when it is in reality a "Baseline Risk Assessment". This amounts to name calling by some very unscrupulous Liable Parties and their consultants BB&L. Obviously the Liable Parties don't agree with risk assessments because they clearly establishes that natural attenuation is not occurring and that natural attenuation is not a remedy that could be used at the site to protect human health and the environment. So the Liable Parties proposal, on a scientific basis is screened out from consideration. Throughout the RI the Liable Parties have tried to manipulate the data, intentionally misrepresent the data, and draw totally inappropriate and scientifically indefensible conclusions. And when those tactics do not work they just refuse to include the data. The KRPA has reviewed the HHRA and the Ecological Risk Assessment (ERA) and found them to be two of the best risk assessments this reviewer has seen in the 18 years of reviewing these kind of documents.

The HHRA and the ERA both found there is an unacceptable risk for both humans and wildlife from eating the PCB contaminated fish from the site. Both risk assessment also found that there is an unacceptable risk to humans and wildlife from the PCB contaminated floodplain soils. The Liable Parties try to hide these facts by not presenting the true findings of the risk assessments and instead state that the "Consumption of fish form the Kalamazoo River is only significant PCB pathway for humans and biota". This statement is false and has been intentionally made for the sole purpose of misleading the EPA, the MDEQ, and the public.

The HHRA not only found that there was a cancer risk to eating the fish and spending time in the floodplains but also found that there is a non-cancer risk from the floodplain soils area.

This section is suppose to present only the findings of the HHRA and the ERA basically word for word. The Liable Parties use another tactic to try and discredit the risk assessments and that is to present misinterpretation and misrepresentation of other documents that are not risk assessments. In this case they chose the "Kalamazoo River Anglers Survey" (Atkin 1994) and the "Kalamazoo River Angler Survey and Biological Testing Survey" (ATSDR 2000). The information form both of these documents was considered in the HHRA however, neither of these documents are risk assessments and must be deleted from this section.

The RI states that "Data currently are insufficient to conclude that the transfer of PCB from exposed sediments to the terrestrial community results in significant ecological risk." Nothing could be further from the truth and the Liable Parties are well aware of this fact. Before the ERA was released to the public in June 1999 the MDEQ met with the Liable Parties consultants BB&L and Dr. Giesy. This issue was the topic of discussion at the meeting. After a presentation by the MDEQ the issue was discussed and the representative for the Liable Parties had only a couple suggestions. The MDEQ took their suggestions and produced the Addendum they cite on page 6-2.

Section 7 – Conceptual Site Model & RROs

Comment 193, Cover Sheet – Delete the entire sheet because it is unsupported by the RI data and scientifically indefensible.

Comment 194, Page 7-1 to 7-10:

Delete Section 7. This is the section that is the Liable Party's own creation and is of no value. In this section the Liable Parties spin their deceptive tale which has no scientific basis. Throughout our comments above we have established that the Liable Parties intentionally misrepresented the data, intentionally left out critical data because it did not support their proposal, did not comply with the AOC, CERCLA & the NCP, NREPA, or the EPA guidance, that they cited documents they knew the MDEQ had rejected years ago on the basis of being technically inaccurate and incomplete and replaced with new versions. We have also established that the Liable Parties used data they collected outside the AOC and the Superfund program under work plans they prevented the MDEQ from reviewing and without MDEQ oversight. The MDEQ had specifically directed them not to use or include this information in the RI/FS.

Delete the Section Summary box because it is technical and factually wrong.

7.2 Importance of Fish PCB Levels

Comment 195, Page 7-1:

The entire section must be delete. This section misrepresents the findings of the HHRA and the ERA. Eating fish is not the only significant risk at the site.

7.3 Regulation of PCB Levels in Bioavailable Zone Sediments

Comment 196, Page 7-3:

Delete the section because it is technically and factually wrong. There are hot spots on the site and they are large. However, given the size of the site it is more a matter of scale. The fish data indicates that the PCB levels in fish are not currently declining, in fact, in the area downstream of Lake Allegan they are increasing. And the bioavailability of PCBs is not decreasing. This is confirmed by the caged fish, lipid bag and yearling fish studies that the Liable Parties refuse to include because the data disproved their position.

Delete all reference to the Morrow Lake it is not part of the site.

7.3.1 PCB Availability for Downstream Transport and Bioaccumulation is Decreasing

Comment 197, Page 7-4:

The decrease of PCBs availability for downstream transport and bioaccumulation has only occurred in the Bryant Mill Pond. The reason for this decrease was the Emergency Removal conducted by the EPA. This action removed 150,000 cy that can no longer be transported downstream and is not bioavailable any more. The MDEQ must use this as a model for the rest of the site and apply immediately. Any other decrease have come as a direct result of the actions taken in the past and listed above. The data proves beyond a doubt that natural attenuation is not occurring at the site and has not contributed significantly to the any decrease in the past. However, as long as the PCB sediments in the river remain and the PCB soils in the floodplain remain the unacceptable risk to human health and the environment will remain.

Comment 198, Page 7-8:

Delete 1st bullet. There may be some minor amounts of PCBs from sources other than the Liable Parties commingled with their PCB waste. However, the Liable Parties landfills contained every Aroclor possible and based on the volume any other source would have to be considered insignificant. That is what the court decided and after 10 years of searching the Liable Parties have failed to prove that any other industry is liable. Also under Michigan law PCB is regulated as total PCB and under CERCLA commingled waste is the responsibility of the Liable Parties.

Comment 199:

Delete the 2nd bullet. The MDEQ has reject the Liable Parties argument that the fish tissue indicate some other source that the paper companies. The fact that the Liable Parties landfills contained every Aroclor possible clearly refutes their claims.

Last paragraph really is supporting the total removal of PCBs from the site, although it could be stated better.

7.4 Summary

Comment 200, Page 7-9:

Delete the shaded box because it is unsupported by the RI data and scientifically indefensible.

Comment 201:

The conceptual model provided in this document is not based in reality or supported by the RI data. Any reduction in PCB levels is a direct result of past action listed in comment 161 above. However, the RI data indicates that the PCB levels are not currently decreasing and in some areas are increasing.

Comment 202:

The conceptual model is that without the removal of the PCBs from the site the site will remain an ecological and human health disaster. The PCBs in surface water are a violation of WQS, and the PCB levels in fish make them unsafe for human or wildlife to eat.

7.5 Remedial Response Objectives

Comment 203:

Delete these Remedial Response Objectives (RRO) because they are meaningless and replace them with Remedial Action Objectives. The Liable Parties failed to include the RAOs because the RAO do not support natural attenuation. The RAO can only be accomplished by conducting the total removal of the PCBs from the site. The RAOs are numerical cleanup standards for the site required by the AOC, EPA guidance, CERCLA and the NCP. The RAOs come from state/federal law and the site risk assessments. The following RAOs must be included in the RI/FS as the cleanup criteria.

PCB cleanup criteria for sediments and all erodible soils is 0.12 mg/kg;

PCB cleanup criteria for all surface water is 0.000026 ug/l;

PCB cleanup criteria for non-erodible upland soils is 0.7mg/kg;

PCB cleanup criteria for all fish tissue is 0.05 mg/kg.

The KRPA's Review of the Feasibility Study

Section 1 Introduction

Comment 204, Cover sheet

Delete the Morrow Lake from here and the entire FS.

1.1 Purpose and Objectives

Comment 205, Page 1-1:

Delete the shaded box. The statement regarding risk at the site is incorrect.

Comment 206, Page 1-1:

Delete the first paragraph because it is incorrect. This Remedial Investigation/Feasibility Study (RI/FS) was not conducted in accordance with any of the statutes cited. In fact a review of this document and the Administrative Record for the site clearly indicated that the Michigan Department of Environmental Quality (DEQ) had provided clear guidance to the Liable Parties and they have refused to comply.

The Liable Parties refused to comply with the requirements for conducting and preparing the RI/FS set out in the Administrative Order by Consent (AOC) that they signed in December 1990. The RI/FS must comply with the AOC. Under the AOC this constitutes an intentional delay by the Liable Parties. The Liable Parties should be assessed stipulate penalties by the MDEQ for this delay.

This document does not comply with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) when preparing the RI/FS. The RI/FS must comply with all requirements of CERCLA and the NCP.

The document also does not follow the United States Environmental Protection Agency (EPA) "Guidance for Conducting Remedial Investigation and Feasibility Studies Under CERCLA" (EPA/540/G-89/004) (EPA guidance) when preparing the RI/FS. The RI/FS must adhere to all requirements of this guidance.

The only logical explanation for why this RI/FS does not comply with any of the above statutes or guidance is that the Liable Parties have intentionally not complied. The appropriate response to this by the DEQ is to take over the writing of the RI/FS immediately.

Comment 207, Page 1-1:

Under the EPA guidance the FS does not propose a remedy. That is done in the Proposed Plan.

Comment 208, Page 1-1:

Delete the 2nd paragraph because it is incorrect. This Remedial Investigation/Feasibility Study (RI/FS) was not conducted in accordance with any of the statutes cited. In fact a review of this document and the Administrative Record for the site clearly indicated that the Michigan Department of Environmental Quality (DEQ) had provided clear guidance to the Liable Parties and they have refused to comply.

The Liable Parties refused to comply with the requirements for conducting and preparing the RI/FS set out in the Administrative Order by Consent (AOC) that they signed in December 1990. The RI/FS must comply with the AOC. Under the AOC this constitutes an intentional delay by the Liable Parties. The Liable Parties should be assessed stipulate penalties by the MDEQ for this delay.

This document does not comply with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) when preparing the RI/FS. The RI/FS must comply with all requirements of CERCLA and the NCP.

The document also does not follow the United States Environmental Protection Agency (EPA) "Guidance for Conducting Remedial Investigation and Feasibility Studies Under CERCLA" (EPA/540/G-89/004) (EPA guidance) when preparing the RI/FS. The RI/FS must adhere to all requirements of this guidance.

The only logical explanation for why this RI/FS does not comply with any of the above statutes or guidance is that the Liable Parties have intentionally not complied. The appropriate response to this by the DEQ is to take over the writing of the RI/FS immediately.

There are no approved addenda for the work plan as cited in this paragraph contained in the site file.

1.3 Geographical Scope of the FS – Site Back Background and Description

Comment 209, Page 1-2:

Delete all reference throughout the FS to Morrow Lake because it is not part of the site and is irrelevant to the site.

1.3.1 Operation and Maintenance of Dams

Comment 210, Page 1-4:

Delete the shaded box it is incorrect the law does not make this requirement.

Comment 211, Page 1-4:

The Liable Parties make the incorrect assumption in the FS that the Plainwell, Otsego and Trowbridge dams will be maintained in-place. The MDNR has informed them in a meeting on March 25, 1999 that the short-term plan is to remove these dams. These dams must be removed because they are extremely unstable and will fail, are a liability, cost the taxpayers money without providing any benefits, and prevent run of the river fishery and recreation. It is a well-known fact that the Allegan City Dam and the Otsego City Dam also have a limited life span. Any cleanup that depends on the dams remaining in-place must be eliminated from consideration as an unrealistic alternative. See attached letter dated September 14, 1999 from MDNR to MDEQ and the February 16, 2000, letter from MDEQ to MDEQ.

It is obvious that the Liable Parties knew that maintaining the Dams in-place long term was unacceptable and still included it in the FS. This type of behavior is cause for removal from the site under the AOC.

The statement concerning the distribution and bioavailability of PCBs is unsupported by the RI data and must be delete.

Comment 212, Page 1-5:

Delete the statement that wetlands restrict access this is not true. Matter of fact the wetlands increase the numbers of persons (hunters & anglers) that visit these areas and increase the time they stay. These are also important wildlife areas and the public is demanding a cleanup down to a level of 0.12 ppm in these areas.

1.4 Pathways to be addressed by Potential Remedial Alternatives

Comment 213, Page 1-5:

Delete the shaded box and the 1st paragraph they are incorrect. The risk assessments found there to be unacceptable risk in the floodplains for humans and wildlife.

Delete the 2nd paragraph. The ERA is not screening level, it is a baseline risk assessment. Change this throughout the FS. Also delete all reference to, throughout the FS, the unapproved data, work, risk assessment or model being conducted without approval and outside the AOC and Superfund program. The Liable Parties were instructed not to include these things in the RI/FS

Delete the 3rd paragraph. The fish PCB levels do not control risk at the site. There is just as much risk, if not more, from the floodplain soils. Erosion is a transport pathway in the former impoundments as well as Otsego City and Allegan City Impoundment.

1.5 Summary of Previous Response Actions

Comment 214, Page 1-6:

It must be noted in the 1st paragraph that release to the was illegal.

Delete the 2nd sentence of the 2nd paragraph. The investigations were not voluntary. They were conducted under the AOC.

Section 2 Development of Remedial Response Objectives & General Response Actions

Delete the cover sheet it is factually incorrect.

2.1 Summary of the Baseline HHRA & ERA

Comment 215, Page 2-1:

Delete the section and have the MDEQ rewrite it. Remove all reference to Dr. Giesy work it is irrelevant.

2.2 Identification of ARARs and TBC

Comment 216, Page 2-2:

Delete and have the MDEQ rewrite. This section is extremely incomplete and incorrectly has ARARs listed as TBCs. This is unacceptable according to the EPA guidance.

2.3 Remedial Response Objectives (RROs)

Comment 217, Page 2.4:

According to EPA guidance these should be Remedial Action Objectives (RAOs) not RROs. According to a review conducted by the EPA the RROs are not the equivalent of the RAOs. Letter dated January 2000 from EPA to MDEQ. Delete these Remedial Response Objectives (RRO) because they are meaningless and replace them with Remedial Action Objectives. The Liable Parties failed to include the RAOs because the RAO do not support natural attenuation. The RAO can only be accomplished by conducting the total removal of the PCBs from the site. The RAOs are numerical cleanup standards for the site required by the AOC, EPA guidance, CERCLA and the NCP. The RAOs come from state/federal law and the site risk assessments. The following RAOs must be included in the RI/FS as the cleanup criteria.

PCB cleanup criteria for sediments and all erodible soils is 0.12 mg/kg;

PCB cleanup criteria for all surface water is 0.000026 ug/l;

PCB cleanup criteria for non-erodible upland soils is 0.7mg/kg;

PCB cleanup criteria for all fish tissue is 0.05 mg/kg.

Also see attached letters (Sept. 3, 1997, Sept. 8, 1997, February 18, 1998, July 2, 1998, Table 5-4 of the ERA) regarding the RAOs. The MDEQ provided copies of all these letters to the Liable Parties years before they submitted their RI/FS.

2.4 General Response Actions

Comment 218:

According to EPA guidance this section is unacceptable because it lack any detail. The MDEQ must delete and rewrite.

2.6 Areas Potentially Subject to Remediation

Comment 219, Page 2-7:

The Liable Parties' proposal only attempts to address 3 of the 10 major PCB source areas in the site. In these 3 areas: which are the Plainwell, Otsego and Trowbridge dam impoundments, the Liable Parties propose the very low cost action of bank stabilization. This will not cleanup the PCB contamination at the site and is unacceptable to the community. It is totally unacceptable for the FS to completely ignore the cleanup of the Kalamazoo River in the area of the Georgia

Pacific Properties, Portage Creek, Otsego City Dam Impoundment, Allegan City Dam Impoundment, and Lake Allegan. This is unacceptable to the community.

The RI/FS and the cleanup remedy must include the cleanup of all PCB contaminated areas of the site. The MDEQ must delete this section and rewrite it completely.

Section 3 Evaluation of Remedial Technologies and Development of Potential Remedial Alternatives.

Comment 220, Page 3-1 to 3-32:

Delete the cover sheet. The information summarized of this sheet is technically unacceptable. The section needs to be deleted and rewritten by the MDEQ. The detailed analysis requirement in the EPA guidance is missing from the section. The Liable Parties failed to include a complete list of cleanup options in the RI/FS as directed by the NCP, the AOC and the EPA guidance. The RI/FS must include objective and complete evaluations of cleanup options such as excavation and dredging, in combination with, landfilling, thermodestruction and incineration. Plans to complete the restoration of the wildlife, wildlife habitat, river, creek, floodplains and wetlands must also be included in the RI/FS.

It is unreasonable to assume that capping the entire river or dredging the entire river is required or in the case of capping even possible. The Liable Parties have gone to extremes to exaggerate the situation and make every remedial alternative unacceptable, with the exception of natural attenuation. The costs of the cleanup options are grossly exaggerated by the Liable Parties in the RI/FS in order to make their own proposed remedy seem "cost effective". However, "cost effectiveness" is relative cost not total cost. The cost is a relatively minor component of the nine criteria evaluation and is only used to compare remedies that meet the nine criteria of the NCP. Since the Liable Parties proposal is not "protective of human health and the environment" and doesn't "comply with ARARs" it must be eliminated from consideration under the NCP. The RI/FS must have cost that are based in reality, not exaggerated.

The screening of remedial alternatives has not been conducted objectively as required by the EPA guidance. For example the in the dry excavation is screened out because "it would be extremely difficult to implement on a large scale". Obviously BB&L is not qualified to work on this site if this is their assessment and they should be removed. Large scale, dry excavation can be implemented at this site as they have been at numerous other sites in Michigan and across the nation. Examples of sites where this was conducted are

Newburgh Lake on the Rouge River (see attached), Pine River in St. Louis, MI, Tyler and Edison Ponds at Willow Run, MI and Allied Paper/Bryant Mill Pond a part of this site (see attached).

Identification and Screening of Remedial Technologies and Process Options Comment 221, Page 3-2:

Delete this section. The reasons given for screening out the technologies are technically unsupported and unacceptable. According to the EPA guidance the FS must include objective and complete evaluations of cleanup options such as excavation and dredging, in combination with, landfilling, thermodestruction and incineration. This was not done. Plans to complete the restoration of the wildlife, wildlife habitat, river, creek, floodplains and wetlands must also be included in the FS.

The Liable Parties, in the FS, broke the site up into units for remediation that made no logical sense. They applied one technology to the entire river, both clean and contaminated areas, in order to reject the technology as impracticable and too costly

4. Detailed Evaluation of Remedial Alternatives

Comment 222:

Delete this section and rewrite. This section is a joke and needs to be deleted and rewritten by the MDEQ. After screening out all the acceptable alternatives in the prior section this section becomes meaningless. The Liable Parties failed to objectively and correctly compare an acceptable list of remedial alternatives against the nine criteria of the NCP in the FS. This is a rudimentary component of any Superfund RI/FS. An objective and correct comparison of all remedial alternatives must be conducted in the RI/FS. The MDEQ must remove the RI/FS from the Liable Parties immediately because of their incompetence and inability to be objective and rewrite the RI/FS.

Comment 223:

The natural attenuation remedy is equivalent to the no action remedy and the institutional controls & monitoring remedy. In the objective RI/FS all three would be screened out because they are not protective of human health and the environment and do not meet the ARAR's. Detailed letters from the site file indicate that the MDEQ and MDNR had informed the Liable Parties of this fact in March 1999. See attached letter dated September 14, 1999 from MDNR to MDEQ and the February 16, 2000, letter from MDEQ to MDEQ.

Comment 224:

The Liable Parties failed to objectively and correctly compare an acceptable list of the remedial alternatives against the nine criteria of the NCP. This is a rudimentary component of any Superfund RI/FS. An objective and correct comparison of all remedial alternatives must be conducted in the RI/FS.

Comment 225:

The costs of the cleanup options are grossly exaggerated by the Liable Parties in the RI/FS in order to make their own proposed remedy seem "cost effective". However, "cost effectiveness" is not one of the nine criteria. The cost is a relatively minor component of the nine criteria evaluation and is only used to compare remedies that meet the nine criteria of the NCP. Since the Liable Parties proposal is not "protective of human health and the environment" and doesn't "comply with ARARs" it must be eliminated from consideration under the NCP. The RI/FS must have costs that are based in reality, not exaggerated.

Comment 226:

The Liable Parties failed to include a complete list of cleanup options in the RI/FS as directed by the NCP, the AOC and the EPA guidance. The RI/FS must include objective and complete evaluations of cleanup options such as excavation and dredging, in combination with, landfilling, thermodestruction and incineration. Plans to complete the restoration of the wildlife, wildlife habitat, river, creek, floodplains and wetlands must also be included in the RI/FS.

Comment 227:

The Liable Parties included by reference, in the RI/FS, their own subjective data that was not collected under the AOC and the Superfund program. This is a violation of the AOC, the EPA guidance, CERCLA and the NCP by the Liable Parties. The Liable Parties intentionally prevented the MDEQ from reviewing and approving their work plans and providing oversight during the collection of their data as required by the AOC. The Liable Parties were also directed by the MDEQ not to include this subjective data in the RI/FS. The inclusion of this data is strictly prohibited by the EPA guidance, the AOC, and NCP. All of their data and all references to their data must be deleted from the RI/FS.

Comment 228:

The Liable Parties, in the RI/FS, broke the site up into units for remediation that made no logical sense. They applied one technology to the entire river, both clean and contaminated areas, in order to reject the technology as impracticable and too costly. They also included Morrow Pond in the RI/FS and it is not part of

the site. Morrow Pond and all references to it must be removed from the RI/FS because it has nothing to do with the site. The RI/FS must also address the cleanup of all impoundments, including Lake Allegan, in a simultaneous action to stop the off-site migration of PCB.

Comment 229:

The Liable Parties conducted an incorrect screening of cleanup options in the RI/FS that does not comply with the NCP, the AOC and the EPA guidance. The RI/FS must contain the appropriate screening that complies with the NCP, the AOC and the EPA guidance.

Comment 130:

The Liable Parties try to shift their liability for the PCB cleanup to the taxpayers of the State of Michigan in the RI/FS. Georgia Pacific Corporation, Fort James Paper Company, Plainwell Inc., and Allied Paper, Inc./Millennium Holdings are the only Liable Parties at this site. This is totally unacceptable and must be completely deleted from the RI/FS.

Section 5 Comparative Analysis of Remedial Alternatives

Comment 131:

This section is meaningless because the Liable Parties have eliminated all protective remedies. However is the RI/FS is objectively written by the MDEQ the Preferred Remedy would be removal of all PCB contamination down to a level of 0.12 ppm from the river and the floodplains. It would be much more cost effective that dredging the entire river. The Preferred Remedy is described below after our review of the Liable Parties ludicrous proposal.

Review of the Liable Party's Proposed Remedy

The second part of the KRPA's review focuses on the cleanup proposal contained in the RI/FS. Georgia Pacific Corporation, Fort James Paper Company, Plainwell Inc., and Allied Paper, Inc./Millennium Holdings, purposed a remedy that is essentially a "No-Action" with monitoring remedy. The components of this proposal are:

- Monitor "Natural Attenuation"
- Keep the fish consumption advisories in-place.
- Stabilize the banks in only 3 out of the 10 heavily PCB contaminated areas.

The Liable Parties' definition of "Natural Attenuation" is that clean soils would enter the Kalamazoo River system and bury the Liable Parties' PCB contaminated waste.

1. The Liable Parties' proposal is to make Lake Allegan, the Kalamazoo River and Lake Michigan a hazardous waste disposal dump for eternity. This is unacceptable to the community.

Some of the consequences to accepting this proposal:

- Lake Allegan could never be dredged.
- No improvements in any recreational uses.
- The fish would remain contaminated with PCBs and will never be edible.
- The river will remain an ecological disaster.
- Your children, families and friends will continue to be exposed to the PCB carcinogens.
- Property values will fall.

2. The Liable Parties' proposal only attempts to address 3 of the 10 major PCB source areas in the site. In these 3 areas: which are the Plainwell, Otsego and Trowbridge dam impoundments, the Liable Parties propose the very low cost action of bank stabilization. This will not cleanup the PCB contamination at the site and is unacceptable to the community.

3. The Liable Parties' proposal does not cleanup any of the 10 heavily contaminated PCB areas. But it completely ignores the cleanup of the Kalamazoo River in the area of the Georgia Pacific Properties, Portage Creek, Otsego City Dam Impoundment, Allegan City Dam Impoundment, and Lake Allegan. This is unacceptable to the community. The RI/FS and the cleanup remedy must include the cleanup of all PCB contaminated areas of the site.

4. The Liable Parties are proposing that somehow nature will make the Liable Parties PCB hazardous waste disappear through the magical process they call "Natural Attenuation". However the site data, collected under the AOC, clearly indicates that "Natural Attenuation" is not occurring now and has not occurred in the last 45 years anywhere in the site. The highest concentrations of PCB are still found in the top 2 inches of sediment. The MDEQ and the EPA must reject this proposal as they have rejected the same exact proposal in 1997 and 1998 when the Liable Parties proposed it for the Bryant Mill Pond and the Kalamazoo River, respectively. Other sites where

"Natural Attenuation" failed to cleanup the site, because it did not occur, but removal of PCB contaminated sediments by excavation was extremely successful are the Bryant Mill Pond at Allied Paper OU1 on this site, Newburg Lake on the Rouge River, Tyler Pond and Edison Pond. The Hudson River will soon join this list. The Pine River is another example of a site where "Natural Attenuation" did not occur even though it was given 20 years to cleanup the site. "Natural Attenuation" is not protective of human health and the environment, does not provide a permanent solution to the massive PCB contamination and is totally unacceptable to the community. The MDEQ must following the EPA guidance, the AOC and the NCP and screen out "Natural Attenuation" from the list of acceptable remedies. Also any remedy that does not meet these two basic requirements of the NCP can not be selected.

5. The Liable Parties argue that if the correct cleanup (excavation of all PCBs) was done and all the PCBs were removed, it would cause destruction of wildlife habitat and wetlands. The Liable Parties also argue that the correct cleanup would take much longer than their "do nothing" remedy. The removals conducted at Bryant Mill Pond, Newburg Lake, Tyler Pond and Edison Pond all prove that the Liable Parties claims are false. The excavation and removal of all the PCB contamination and the restored of the wildlife habitat for all of the above sites took approximately one year or less. The Liable Parties arguments are false and must be removed from the RI/FS.

6. The Liable Parties' proposal states that the State Water Quality Standard must be waived. The Preferred Remedy must comply with this standard. This standard is not waived for any of the NPDES permits and must not be waived as a way to allow a no action remedy. Waiver of any environmental law, cleanup criteria or standard is totally unacceptable to the community.

7. The fish in the Kalamazoo River and Portage Creek would continue to be contaminated with PCBs above a safe level for consumption by humans and wildlife. This is totally unacceptable to the community.

8. PCBs would remain bioavailable in the Kalamazoo River ecosystem and continue to migrate into Lake Michigan at 150 to 200 pounds a year. This is totally unacceptable to the community.

9. The Liable Parties proposed remedy would leave hundreds of acres of prime wildlife habitat contaminated with PCBs and, therefore, lost forever. This is totally unacceptable to the community. The community demands that all the PCB contamination is removed from the entire site and all of the wetlands/floodplains and wildlife habitat is completely restored.

10. The community also demands that any funds collect from the Liable Parties be spent cleaning up and restoring the site. The community will not accept any form of compensation instead of cleanup. All compensation must be in addition to the total removal of the PCB contamination and cleanup of the site. It is totally unacceptable to divert any funding to other parts of the Michigan or even other non-contaminated parts of the Kalamazoo watershed unless the site is cleanup and restored. This also includes any funds from natural resource damages.

11. The Liable Parties produced an RI/FS that is incomplete, technically inaccurate, and does not represent the risk at the site. It appears quite obvious from our review that the Liable Parties deliberately produced an RI/FS that was not acceptable to delay the progress of this site. This is the same strategy that the Liable Parties used with the Technical Memoranda for the past 10 years to delay the site progress. With this action they have demonstrated, once again, that they are incapable of finalizing the RI/FS and will stop at nothing to delay the cleanup of this site. The continuation of the Liable Parties on the site and in control of the production of the RI/FS is unacceptable to the community.

12. The Natural Resource Damages associated with the Liable Parties proposed remedy would be astronomical. With their no action proposal there isn't any cleanup or restoration of the site and the future injuries and loss of services continue on into perpetuity.

13. The Liable Parties make the incorrect assumption in the FS that the Plainwell, Otsego and Trowbridge dams will be maintained in-place. The MDNR has informed them that the short-term plan is to remove these dams. These dams must be removed because they are extremely unstable and will fail, are a liability, cost the taxpayers money without providing any benefits, and prevent run of the river fishery and recreation. It is a well-known fact that the Allegan City Dam and the Otsego City Dam also have a limited life span. Any cleanup that depends on the dams remaining in-place must be eliminated from consideration as an unrealistic alternative.

Section 6 Preferred Remedy

Comment

Delete this entire section because it is unacceptable and replace the information below.

The KRPA's has conducted a thorough review of the cleanup alternatives and has determined that the only cleanup alternative that is acceptable to the community is excavation and removal of all the PCBs from the site. The reason total removal of the PCBs is the only acceptable cleanup to the community is that it is the only remedy that meets all nine criteria of the NCP and restores the site. This includes being protective of both human health and the environment, meeting both the state and federal environmental laws known as ARARs, accomplishes the site specific RAO and has the only realistic chance of allowing the restoration of the fishery. The removal alternative is also the only remedy that contains no long-term operations and maintenance and provides a permanent solution without any chance of a future release of PCBs. To be complete the removal remedy must include the following:

1. The cleanup remedy must remove all PCBs from Portage Creek and the Kalamazoo River. This includes the removal of the PCBs from the sediments and soils of the river/creek, floodplains/wetlands and uplands.
2. The cleanup remedy must include a plan for the total restoration of all affected wetlands, floodplains, uplands, river and creek. This plan must focus on restoring all of these areas back to a PCB free, functioning ecosystem. It must also include the restoration plan for the fishery, as well as, the mink and eagle population. These areas along the river must be restored to serve as a wild green space and provide both wildlife habitat and a filter zone for non-point source pollution.
3. The cleanup remedy must include the remove of specific dams on Portage Creek and the Kalamazoo River. Removing these dams will produce a run of the river warm water fishery and recreational boating opportunities that could be second to none in the State of Michigan. The dams that must be removed on the Kalamazoo River are the Plainwell Dam, Otsego City Dam, Otsego Dam, Trowbridge Dam, Allegan City Dam and the Alcott Street Dam on Portage Creek. The removal of the Allegan City Dam will need additional design work to allow the city's waterfront to be unaffected. An off-channel pond must be constructed during the Superfund excavation and removal of all the PCB contaminated waste.

4. The cleanup remedy must include plans to increase the depth of Lake Allegan and all the navigational channels and marinas on the downstream portion of the Kalamazoo River. This increase in depth will be the natural outcome from the excavation of the PCB contaminated sediments.

5. The NRDA process must not be used as a substitute for the excavation and removal of all PCBs from the site. More than any other cleanup remedy, the removal remedy, restores the Kalamazoo River ecosystem to a clean and usable natural resource. This remedy also drastically reduces the amount of funds that the Liable Parties must pay to compensate the public for all future residual injuries and loss of service at the site.

The KRPA's strongly believes that all of the PCBs must be excavated and removed from the site to protect and restore the Portage Creek and Kalamazoo River ecosystems. All of the contamination removed from this site must also be disposed of in an off-site licensed landfill. There are no technical or economic reasons why this should not be accomplished in the next 10 years.

KRPA's Recommendations for the MDEQ Concerning the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site:

- 1. The MDEQ must reject this RI/FS because it is technically inaccurate, incomplete, extremely misleading, does not comply with the AOC, EPA guidance, CERCLA, the NCP and unacceptable to the community. The MDEQ must make the finding under the AOC of "Disapproval with MDEQ modification - which means that MDEQ has determined that it will modify the submissions to cure any deficiencies and/or undertake the RI/FS or any portion of the RI/FS."**
- 2. The MDEQ must reject the Liable Parties proposed remedy because it does not even meet the Threshold Criteria of the nine criteria in accordance with the NCP. A remedy cannot be selected under CERCLA that does not meet the Threshold Criteria. Specifically, the Liable Parties natural attenuation remedy does not comply with state or federal laws known in Superfund as ARARs, is not protective of human health and the environment, does not accomplish the Remedial Action Objectives, does not provide a permanent cleanup solution, and is totally unacceptable to the community.**

3. The MDEQ must takeover the writing of the Phase 2 (Lake Allegan to Lake Michigan) RI/FS to prevent the Liable Parties from intentionally causing further delays.
4. The MDEQ must make the finding of "Disapproval with MDEQ modification" on all Technical Memoranda that are not currently in the public information repositories. All Technical Memoranda should have been final 7 years ago. The MDEQ must final all Technical Memoranda immediately.
5. The MDEQ must produce the RI/FS that is complete, technically accurate and complies with CERCLA, the NCP, and the EPA guidance. When this is done the excavation and removal cleanup remedy will be the Preferred Remedy that will be presented in the Proposed Plan and selected in the Record of Decision.
6. The MDEQ must terminate the Liable Parties involvement in the site. They have demonstrated over and over that they will stop at nothing to prevent the cleanup of this site.